

Chapter 13

Adoption and Use of ICTs by Livestock Keepers for Improved Access to Livestock Information: A Case of Selected Urban Areas in Tanzania

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ABSTRACT

Information and communication technologies (ICTs) are very important tools for economic development and poverty reduction when used effectively by individuals in all economic sectors including agriculture. Urban livestock keepers need ICTs in their activities so that they can make informed decisions that can lead to improvement of the livestock industry. Despite its importance, ICT use is hindered by several factors including unawareness of the radio and television programmes and lack of computer skills. This chapter reveals the extent of use of ICTs by urban and peri-urban livestock keepers whereby different types of ICTs are used by urban livestock keepers to access livestock information, though some ICTs, for example, mobile phones are used more than other ICTs (radio and television). Internet is used by very few livestock keepers due computer illiteracy. Policy implications include improvement of the telecommunications services by the government through relevant bodies in order to facilitate more access to information through mobile phones, radio, television, and the internet.

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INTRODUCTION

The use of ICTs has increased dramatically since the 1990s; information can now be disseminated to different people more easily, faster and at a cheaper cost, regardless of the distance between the people. ICTs are often categorized based on how long they have been in common use, and to some extent the technology used for the transmission and storage of information. ICTs can be grouped as new (or modern), old (or traditional) and very old ICTs (Thioune, 2003). Computers, satellites, wireless, mobile phones, the Internet, e-mail and multimedia generally fall into the new ICT category. The concepts behind these technologies are not particularly new, but the common and inexpensive use of them is what makes them new. Most of these, and virtually all new versions of them, are based on digital communications. Old or Traditional ICTs include radio, television, fixed line telephones, and facsimile machines. These are technologies that have been in common use throughout much of the world for many decades. Traditionally, these technologies have used analog transmission techniques, although they too are migrating to the now less expensive digital format, which have been gradually ingrained in the daily habits and lives of people and communities. Newspapers, books and libraries fall into the very old ICTs category. They have been in common use for several hundred years.

In Africa, ICTs have a very great potential in enhancing access to agricultural information hence improving the agricultural sector. The ICTs have become important tools for recording livestock performance and production levels. Many commercial farmers in Africa run computer-based recording and management software that turns raw performance data into information that can be used immediately at the local farm level. In South Africa for example, most local livestock data is fed into a centralized information system called the Integrated Registration and Genetic Information System (INTERGIS), which sets national livestock productivity benchmarks, enables comparisons of all animals in terms of genetic potential, and provides policymakers and farmers with a reliable source of reference (Westhuizen, 2003). Farmers in Senegal are now better placed to receive accurate market information on their mobile phones. Small producers no longer have to accept the first price they are offered; with access to up-to-date market information, they can negotiate to try to get a better deal. They can also communicate with other farmers more easily, making it feasible for them to set up cooperatives that can explore new markets and sell their products to bigger buyers (CTA, 2009).

Various studies have indicated that ICTs have been used for accessing agricultural information in some East African countries including Kenya and Uganda (Ferris, 2004; Achora, 2009; Kiplagat, 2009; Gantt and Cantor, 2010). In Kenya, ICTs such as mobile phones have successfully been used by community animal health workers in disseminating information. The phones have enabled the animal health care service providers to keep one another updated on animal health issues and share information on availability of essential veterinary drugs. It has also contributed to a reduction in transaction costs (transport, time spent travelling and other miscellaneous costs involved in animal treatment), leading to increased access to and efficiency of animal health service delivery (Kithuka *et al*, 2001).

Background Information

Livestock production is one of the major agricultural activities in Tanzania. The sub sector contributes to national food supply, converts rangelands resources into products suitable for human consumption and is a source of income both to the farmers and to the country. It provides about 30 per cent of the Agricultural Gross Domestic Product (GDP). Out of the sub sector's contribution to GDP, about 40

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